

=> d his

(FILE 'HOME' ENTERED AT 08:58:17 ON 28 DEC 2007)

FILE 'REGISTRY' ENTERED AT 08:58:24 ON 28 DEC 2007

L1 995518 S NCSC2/ES
L2 STRUCTURE UPLOADED
L3 12 S L2 SAM SUB=L1
L4 217 S L2 SSS FULL SUB=L1

FILE 'CAPLUS' ENTERED AT 08:59:36 ON 28 DEC 2007

L5 9 S L4

FILE 'REGISTRY' ENTERED AT 08:59:41 ON 28 DEC 2007

SAV TEM L4 BRD555664/A

FILE 'CAPLUS' ENTERED AT 09:00:12 ON 28 DEC 2007

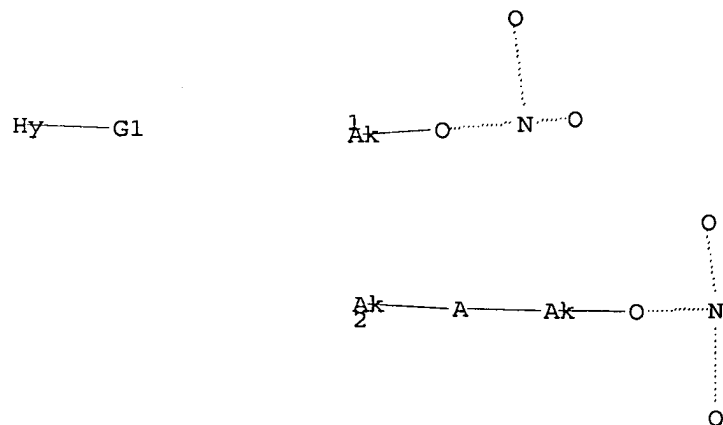
L6 1 S US200!-555664/APPS
L7 1 S L5 AND L6
L8 8 S L5 NOT L6

FILE 'REGISTRY' ENTERED AT 09:00:40 ON 28 DEC 2007

=> d l2

L2 HAS NO ANSWERS

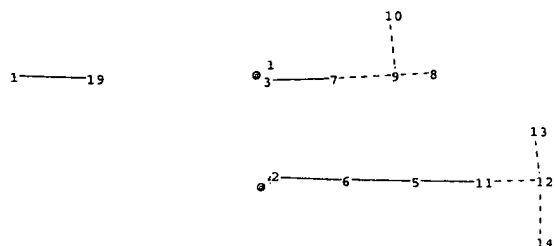
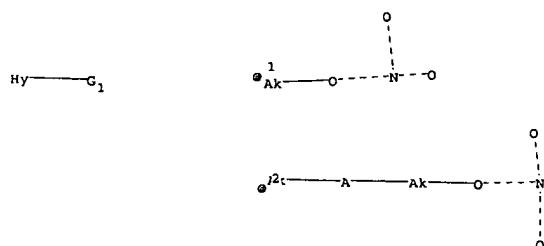
L2 STR



G1 [@1] , [@2]

Structure attributes must be viewed using STN Express query preparation.

=>



chain nodes :

1 3 4 5 6 7 8 9 10 11 12 13 14 19

chain bonds :

1-19 3-7 4-6 5-6 5-11 7-9 8-9 9-10 11-12 12-13 12-14

exact/norm bonds :

1-19 3-7 4-6 5-6 5-11 7-9 8-9 9-10 11-12 12-13 12-14

G1:[*1],[*2]

Connectivity :

3:2 E exact RC ring/chain 4:2 E exact RC ring/chain 5:2 E exact RC ring/chain

Match level :

1:Atom 3:CLASS 4:CLASS 5:CLASS 6:CLASS 7:CLASS 8:CLASS 9:CLASS 10:CLASS
11:CLASS 12:CLASS 13:CLASS 14:CLASS 19:CLASS

Generic attributes :

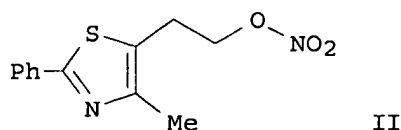
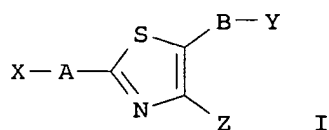
1:
Saturation : Unsaturated
Number of Carbon Atoms : less than 7
Number of Hetero Atoms : 2 or more
Type of Ring System : Monocyclic

Element Count :

Node 1: Limited
S,S1
N,N1
C,C3

L7 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2007 ACS on STN
 AN 2005:1192912 CAPLUS
 DN 143:460140
 TI Preparation of thiazole derivatives as nitric oxide donors for treating
 inflammatory bowel diseases
 IN Assaf, Peter
 PA Renopharm Ltd., Israel
 SO PCT Int. Appl., 126 pp., which
 CODEN: PIXXD2
 DT Patent
 LA English
 FAN.CNT 1

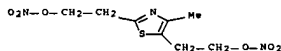
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PI	WO 2005105065	A2	20051110	WO 2005-IL480	20050505
	WO 2005105065	A3	20051215		
	W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
	RW:	BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
	WO 2005105765	A1	20051110	WO 2005-IL481	20050505
	W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
	RW:	BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
	EP 1753734	A1	20070221	EP 2005-737588	20050505
	R:	AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR			
	US 2006069138	A1	20060330	US 2005-266346 → 1D	20051104
	US 2006069139	A1	20060330	US 2005-266424	20051104
	US 2006183718	A1	20060817	US 2005-266431	20051104
	US 2006183912	A1	20060817	US 2005-266441	20051104
	US 7189750	B2	20070313		
	US 2006183913	A1	20060817	US 2005-266443	20051104
	US 2007021382	A1	20070125	US 2005-555664	20051104 <--
PRAI	US 2004-567824P	P	20040505		
	US 2005-651619P	P	20050211		
	WO 2005-IL481	W	20050505		
OS	MARPAT 143:460140				
GI					



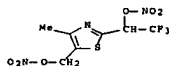
AB Use of a novel class of NO-donating compds. of formula I [A = alkenyl, alkoxy, alkyl, aryl, NH, diazo, disulfide, etc.; X = alkyl, alkoxy, aryl, aryloxy, CN, cycloalkyl, heteroaryl, etc.; B = alkylene, heteroalkylene, etc.; Y = NO-releasing group; Z = H, alkyl, NH₂, cycloalkyl, aryl, halo, OH, alkoxy, etc.], designed such that when NO is released from the compound a residue which is a naturally occurring metabolite is formed, in the treatment of inflammatory bowel diseases is disclosed. Thus, II was prepared, and had ΔOD_{460} value of 12.75 in MPO activity tests in colon tissues from colitis-induced rats.

LS ANSWER 1 OF 8 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2005:547257 CAPLUS Full-text
DN 143:77866
TI Preparation of nitrate esters having a β - or γ -sulfur atom for
protection of cells/tissues from oxidative damage.
IN Thatcher, Gregory R. J.; Bennett, Brian M.; Reynolds, James N.; Boegman,
Roland J.; Jhamandas, Khem
PA USA
SO U.S. Pat. Appl. Publ., 83 pp., Cont.-in-part of U.S. Ser. No. 147,808.
CODEN: USXXCO
DT Patent
LA English
FAN, CNT 6

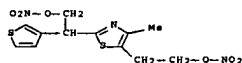
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2005137191	A1	20050623	US 2004-943264	20040917
US 5807847	A	19980915	US 1996-658145	19960604
US 5883122	A	19990316	US 1997-867856	19970603
US 6310052	B1	20011030	US 1999-267379	19990315
US 7115661	B1	20061003	US 1999-473713	19991229
EP 1518551	A2	20050330	EP 2004-28372	20001227
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY, TR				
US 2002177622	A1	20021128	US 2002-147808	20020520
US 6916835	B2	20050712		
AU 2005284573	A1	20060323	AU 2005-284573	20050916
CA 2580627	A1	20060323	CA 2005-2580627	20050916
WO 2006029532	A1	20060323	WO 2005-CA1417	20050916
M: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GR, GU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, ME, MG, MH, MI, MK, MN, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RM: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, ML, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GO, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MH, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
EP 1797100	A1	20070620	EP 2005-787832	20050916
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR				
PRAI US 1996-658145	A2	19960604		
US 1997-867856	A2	19970603		
US 1999-267379	A3	19990315		
US 1999-473713	A2	19991229		
US 2002-147808	A2	20020520		
EP 2000-986925	A3	20001227		
US 2001-851591	A3	20010510		
US 2002-108513	A3	20020329		
US 2004-943264	A	20040917		
WO 2005-CA1417	W	20050916		
OS MARPAT 143:77866				
AB YXCR3R4(CR17R18)n(CR1R2)mONO2 [m, n = 0-10; R3, R4, R17 = H, nitrate, A; R1 = H, A; A = (substituted) (unsatd.) (cyclic) aliphatic; R1R3, R4R17 = aliphatic linkage; R2, R18 = H, A, XY; X = F, Cl, Br, Cl, NO2, CH2, CF2, O, NH, NMe, cyano, NHOH, N3, S, SCN, SO, SO2, etc.; Y = null, F, Cl, Br, Cl, Me, CF2H, CF3, OH, NH2, S, SCN, SH, etc.; with proviso(s), were prepared Thus.				



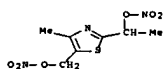
RN 854925-93-2 CAPLUS
CN 2,5-Thiazolodimethanol, 4-methyl-2-(trifluoromethyl)-, dinitrate (ester) (9CI) (CA INDEX NAME)



RN 854925-94-3 CAPLUS
CN 2,5-Thiazolodimethanol, 4-methyl-2-(3-thienyl)-, dinitrate (ester) (9CI) (CA INDEX NAME)



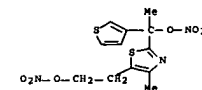
RN 854925-95-4 CAPLUS
CN 2,5-Thiazolodimethanol, 2,4-dimethyl-, dinitrate (ester) (9CI) (CA INDEX NAME)



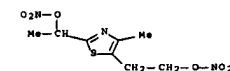
RN 854925-96-5 CAPLUS
CN 2,5-Thiazolodimethanol, 4-methyl-2-[2,2,2-trifluoro-1-(nitrooxy)ethyl]-, nitrate (ester) (9CI) (CA INDEX NAME)

[02NOCH2CH(ONO2)CH2S]2 (prepared via the corresponding Bunte salt) at 200 μ mol/kg s.c. gave virtually complete protection against 6-OHDA killing of dopaminergic neurons in rats.
IT 854925-90-9P 854925-91-0P 854925-92-1P
854925-93-2P 854925-94-3P 854925-95-4P
854925-96-5P 854925-97-6P 854925-98-7P
854925-99-8P 854925-00-4P 854925-01-6P 854925-02-7P
854925-03-8P 854925-04-9P 854925-05-0P 854925-06-1P
854925-07-2P 854925-08-3P 854925-09-4P 854925-10-5P
854925-11-6P 854925-12-7P 854925-13-8P 854925-14-9P
854925-15-0P 854925-16-1P 854925-17-2P 854925-18-3P
854925-19-4P 854925-20-5P 854925-21-6P 854925-22-7P
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854925-27-2P 854925-28-3P 854925-29-4P 854925-30-5P
854925-31-6P 854925-32-7P 854925-33-8P 854925-34-9P
854925-35-0P 854925-36-1P 854925-37-2P 854925-38-3P
854925-39-4P 854925-40-5P 854925-41-6P 854925-42-7P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(claimed compound; preparation of nitrate esters having β - or γ -sulfur atom for protection of cells/tissues from oxidative damage)

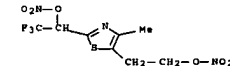
RN 854925-90-9 CAPLUS
CN 5-Thiazoleethanol, 4-methyl-2-[1-(nitrooxy)-1-(3-thienyl)ethyl]-, nitrate (ester) (9CI) (CA INDEX NAME)



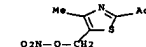
RN 854925-91-0 CAPLUS
CN 5-Thiazoleethanol, 4-methyl-2-[1-(nitrooxy)ethyl]-, nitrate (ester) (9CI) (CA INDEX NAME)



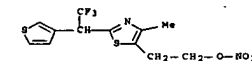
RN 854925-92-1 CAPLUS
CN 2,5-Thiazolodimethanol, 4-methyl-, dinitrate (ester) (9CI) (CA INDEX NAME)



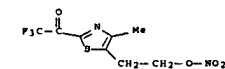
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CN Ethanone, 1-(4-methyl-5-[(nitrooxy)methyl]-2-thiazolyl)- (CA INDEX NAME)



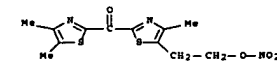
RN 854925-99-8 CAPLUS
CN 5-Thiazoleethanol, 4-methyl-2-[2,2,2-trifluoro-1-(3-thienyl)ethyl]-, nitrate (ester) (9CI) (CA INDEX NAME)



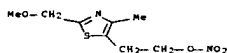
RN 854926-00-4 CAPLUS
CN Ethanone, 2,2,2-trifluoro-1-(4-methyl-5-[2-(nitrooxy)ethyl]-2-thiazolyl)- (CA INDEX NAME)



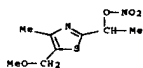
RN 854926-02-6 CAPLUS
CN Methanone, (4,5-dimethyl-2-thiazolyl) [4-methyl-5-[2-(nitrooxy)ethyl]-2-thiazolyl]- (CA INDEX NAME)



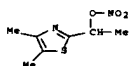
RN 854926-03-7 CAPLUS
CN 5-Thiazoleethanol, 2-(methoxymethyl)-4-methyl-, nitrate (ester) (9CI) (CA INDEX NAME)



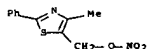
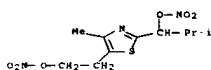
RN 854926-06-0 CAPLUS
CN 2-Thiazoleethanol, 5-(methoxymethyl)-4,4-dimethyl-, nitrate (ester) (9CI) (CA INDEX NAME)



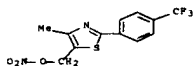
RN 854926-07-1 CAPLUS
CN 2-Thiazoleethanol, α,4,5-trimethyl-, nitrate (ester) (9CI) (CA INDEX NAME)



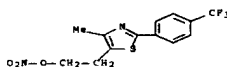
RN 854926-08-2 CAPLUS
CN 5-Thiazoleethanol, 4-methyl-2-[2-methyl-1-(nitrooxy)propyl]-, nitrate (ester) (9CI) (CA INDEX NAME)



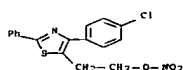
RN 854926-14-0 CAPLUS
CN 5-Thiazoleethanol, 4-methyl-2-[4-(trifluoromethyl)phenyl]-, nitrate (ester) (9CI) (CA INDEX NAME)



RN 854926-15-1 CAPLUS
CN 5-Thiazoleethanol, 4-methyl-2-[4-(trifluoromethyl)phenyl]-, nitrate (ester) (9CI) (CA INDEX NAME)

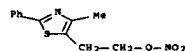


RN 854926-17-3 CAPLUS
CN 5-Thiazoleethanol, 4-(4-chlorophenyl)-2-phenyl-, nitrate (ester) (9CI) (CA INDEX NAME)

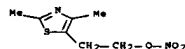


RN 854926-18-4 CAPLUS
CN 5-Thiazoleethanol, 2-(4-chlorophenyl)-4-methyl-, nitrate (ester) (9CI) (CA INDEX NAME)

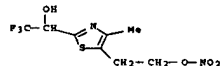
RN 854926-09-3 CAPLUS
CN 5-Thiazoleethanol, 4-methyl-2-phenyl-, nitrate (ester) (9CI) (CA INDEX NAME)



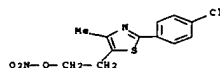
RN 854926-10-6 CAPLUS
CN 5-Thiazoleethanol, 2,4-dimethyl-, nitrate (ester) (9CI) (CA INDEX NAME)



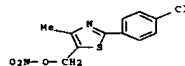
RN 854926-11-7 CAPLUS
CN 5-Thiazoleethanol, 4-methyl-2-(2,2,2-trifluoro-1-hydroxyethyl)-, nitrate (ester) (9CI) (CA INDEX NAME)



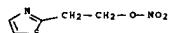
RN 854926-12-8 CAPLUS
CN 5-Thiazoleethanol, 2-(4-chlorophenyl)-4-methyl-, nitrate (ester) (9CI) (CA INDEX NAME)



RN 854926-13-9 CAPLUS
CN 5-Thiazoleethanol, 4-methyl-2-phenyl-, nitrate (ester) (9CI) (CA INDEX NAME)



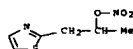
RN 854926-26-4 CAPLUS
CN 2-Thiazoleethanol, nitrate (ester) (9CI) (CA INDEX NAME)



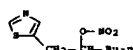
RN 854926-28-6 CAPLUS
CN 2-Thiazoleethanol, α-methyl-, nitrate (ester) (9CI) (CA INDEX NAME)



RN 854926-30-0 CAPLUS
CN 2-Thiazoleethanol, α-methyl-, nitrate (ester) (9CI) (CA INDEX NAME)

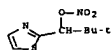


RN 854926-31-1 CAPLUS
CN 5-Thiazoleethanol, α-butyl-, nitrate (ester) (9CI) (CA INDEX NAME)



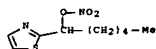
RN 854926-32-2 CAPLUS

CN 2-Thiazolemethanol, α -(1,1-dimethylethyl)-, nitrate (ester) (9CI)
(CA INDEX NAME)



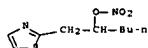
RN 854926-33-3 CAPLUS

CN 2-Thiazolemethanol, α -pentyl-, nitrate (ester) (9CI) (CA INDEX NAME)



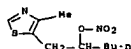
RN 854926-34-4 CAPLUS

CN 2-Thiazoleethanol, α -butyl-, nitrate (ester) (9CI) (CA INDEX NAME)



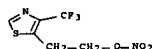
RN 854926-37-7 CAPLUS

CN 5-Thiazoleethanol, α -butyl-4-methyl-, nitrate (ester) (9CI) (CA INDEX NAME)



RN 854926-38-8 CAPLUS

CN 5-Thiazoleethanol, 4-(trifluoromethyl)-, nitrate (ester) (9CI) (CA INDEX NAME)



RN 854926-41-3 CAPLUS

CN 5-Thiazolemethanol, α -methyl-4-(trifluoromethyl)-, nitrate (ester) (9CI) (CA INDEX NAME)



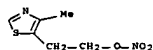
IT 252568-49-3P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of nitrate esters having β - or γ -sulfur atom for protection of cells/tissues from oxidative damage)

RN 252568-49-3 CAPLUS

CN 5-Thiazoleethanol, 4-methyl-, nitrate (ester) (9CI) (CA INDEX NAME)



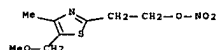
IT 854926-52-6

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(preparation of nitrate esters having β - or γ -sulfur atom for protection of cells/tissues from oxidative damage)

RN 854926-52-6 CAPLUS

CN 2-Thiazoleethanol, 5-(methoxymethyl)-4-methyl-, nitrate (ester) (9CI) (CA INDEX NAME)



L8 ANSWER 2 OF 8 CAPLUS COPYRIGHT 2007 ACS on STN

AN 2001:792327 CAPLUS [Full-text](#)

DN 135:339273

TI Nitrate esters, their preparation and use for treatment of neurological conditions

IN Thatcher, Gregory R. J.; Bennett, Brian M.; Reynolds, James N.; Boegman, Roland J.; Jhamandas, Khem

PA Queen's University at Kingston, Can.

SO U.S., 57 pp., Cont.-in-part of U.S. 5,083,122.

CODEN: USXXAM

DT Patent

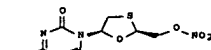
LA English

FAN.CNT 6

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6310052	B1	20011030	US 1999-267379	19990315
US 5807847	A	19980915	US 1996-658145	19960604
US 5883122	A	19990316	US 1997-867856	19970603
CA 2364493	A1	20000921	CA 2000-2364493	20000315
WO 2000054756	A2	20000921	WO 2000-CA280	20000315
WO 2000054756	A3	20010125		
W: AB, AD, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LV, LU, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM				
RM: GH, GM, KE, LS, MM, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
EP 1163029	A2	20011219	EP 2000-910456	20000315
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
JP 2002539152	T	20021119	JP 2000-604832	20000315
AU 781036	B2	20050915	AU 2000-32673	20000315
US 2002016311	A1	20020207	US 2001-851591	20010510
US 6365579	B2	20020402		
MX 2001PA09246	A	20040326	MX 2001-PA9246	20010913
US 2002147234	A1	20021010	US 2002-108513	20020329
US 6677374	B2	20040113		
US 2002177622	A1	20021128	US 2002-147808	20020520
US 6916835	B2	20050712		
US 2005137191	A1	20050623	US 2004-943264	20040917
PRAI US 1996-658145	A2	19960604		
US 1997-867856	A2	19970603		
US 1999-267379	A	19990315		
US 1999-473713	A2	19991229		
WO 2000-CA280	W	20000315		
US 2001-851591	A3	20010510		
US 2002-108513	A3	20020329		
US 2002-147808	A2	20020520		

GB MARPAT 135:339273

CI



AB Title compds. O2NO-E-F-G [E, F, G = organic radicals; F, G = unsubstituted, unsubstituted pyridyl; when E = alkyl, F, G = not both alkyl radicals bearing nitrate groups or an O linkage; I] were prepared. Examples include 7 bioassays and 13 synthetic examples. E.g., 2',3'-dideoxy-3-thiocytosine was nitrated (Ac2O, HNO3, -30°C, 10 min) gave II in 52% yield. Certain examples I were shown to activate guanylyl cyclase. The invention is useful for treatment of neurol. or cognitive conditions.

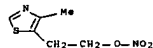
IT 252568-49-3P

RL: PAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(nitrate esters, preparation, and use for treatment of neurol. conditions)

RN 252568-49-3 CAPLUS

CN 5-Thiazoleethanol, 4-methyl-, nitrate (ester) (9CI) (CA INDEX NAME)



RE.CNT 95 THERE ARE 95 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 3 OF 8 CAPLUS COPYRIGHT 2007 ACS on STN

AN 2001:507519 CAPLUS [Full-text](#)

DN 135:92207

TI Synthesis, methods and compositions of organic nitrates for mitigating pain

IN Thatcher, Gregory R. J.; Bennett, Brian M.; Reynolds, James N.; Jhamandas, Khem

PA Queen's University at Kingston, Can.

SO PCT Int. Appl., 114 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 6

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001049275	A2	20010712	WO 2000-CA1523	20001227
WO 2001049275	A3	20011213		
W: AB, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW				
RM: GH, GM, KE, LS, MM, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
US 7115661	B1	20061003	US 1999-473713	19991229
CA 2394184	A1	20010712	CA 2000-2394184	20001227
AU 200123351	A	20010716	AU 2001-23351	20001227

10555664 13 of 18

AU 782489 B2 20050804
 EP 1246625 A2 20021009 EP 2000-986925 20001227
 EP 1246625 B1 20041201

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR

JP 2003519176 T 20030617 JP 2001-549643 20001227
 AT 283695 T 20041215 AT 2000-986925 20001227
 EP 1518553 A2 20050330 EP 2004-28372 20001227

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY, TR

PT 1246625 T 20050331 PT 2000-986925 20001227
 ES 2233489 T 20050616 ES 2000-986925 20001227
 HK 1050144 A1 20050708 HK 2003-102415 20030403
 US 2007066575 A1 20070322 US 2006-507995 20060922

PRAI US 1999-473713 A2 19991229
 EP 2000-986925 A3 20001227
 WO 2000-CA1523 W 20001227

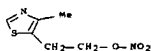
OS MARPAT 135:92207

AB Methods and therapeutic compds. for treating pain, mitigating inflammation, effecting analgesia and/or effecting sedation in a subject are described. A subject is administered an effective amount of a therapeutic compound, e.g. 4-methylthiazole-5-yl nitrate (I), which is a nitrate ester. I shows a mean of 54.21 s at 10 mg/kg in scopolamine-impaired learning assay. Novel pharmaceutical compns. are also described.

IT 252568-49-3
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (synthesis, methods and compns. of organic nitrates for mitigating pain)

RN 252568-49-3 CAPLUS

CN 5-Thiazoleethanol, 4-methyl-, nitrate (ester) (9CI) (CA INDEX NAME)



RE.CNT 43 THERE ARE 43 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

LS ANSWER 4 OF 8 CAPLUS COPYRIGHT 2007 ACS ON STN
 AN 2000:666544 CAPLUS [Full-text](#)
 DN 133:232855

TI Nitrate esters, their preparation, and their use for treatment of neurological conditions

IN Thatcher, Gregory R. J.; Bennett, Brian M.; Reynolds, James N.; Boegman, Roland J.; Jhamandas, Khem
 Queen's University at Kingston, Can.

PA PCT Int. Appl., 115 pp.
 SO CODEN: PIXXD2

DT Patent
 LA English
 PAN.CNT 6

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2000054756	A2	20000921	WO 2000-CA280	20000315

10555664 15 of 18

AB Treating nitrates, e.g. 2,4-(O2N)2C6H3CH2CH2ONO2, with NaOH/EtOH gave alkenes, e.g., 2,4-(O2N)2C6H3CH=CH2.

IT 252568-49-3
 RL: SPN (Synthetic preparation); PREP (Preparation) (preparation of)

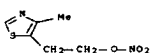
RN 252568-52-8 CAPLUS

CN 5-Thiazoleethanol, 4-methyl-, nitrate (ester), compd. with 2,4,6-trinitrophenol (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 252568-49-3

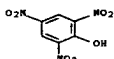
CMF C6 H8 N2 O3 S



CM 2

CRN 88-89-1

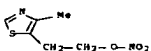
CMF C6 H3 N3 O7



IT 252568-49-3
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent) (preparation of olefins from nitro esters)

RN 252568-49-3 CAPLUS

CN 5-Thiazoleethanol, 4-methyl-, nitrate (ester) (9CI) (CA INDEX NAME)



RE.CNT 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

LS ANSWER 6 OF 8 CAPLUS COPYRIGHT 2007 ACS ON STN
 AN 1965:488547 CAPLUS [Full-text](#)

10555664 14 of 18

WO 2000054756 A3 20010125

M: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MM, MO, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM, ZW

RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

US 6310052 B1 20011030 US 1999-267379 19990315
 CA 2364493 A1 20000921 CA 2000-2364493 20000315
 EP 1163029 A2 20001129 EP 2000-910456 20000315

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO

JP 2002509152 T 20021119 JP 2000-604832 20000315
 AU 783036 B2 20050515 AU 2000-32673 20000315
 MX 2001PA09246 A 20040326 MX 2001-PA9246 20010913

PRAI US 1999-267379 A 19990315
 US 1996-658145 A2 19960604
 US 1997-867856 A2 19970603
 WO 2000-CA280 W 20000315

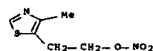
OS MARPAT 133:232855

AB Compds. and methods are described for mitigating neurodegeneration, effecting neuroprotection, and/or effecting cognition enhancement. Neurol. or cognitive conditions are treated by administering to a subject an effective amount of a therapeutic compound comprising a nitrate ester, or a pharmaceutically acceptable salt or ester thereof.

IT 252568-49-3
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (nitrate esters, preparation, and use for treatment of neurol. conditions)

RN 252568-49-3 CAPLUS

CN 5-Thiazoleethanol, 4-methyl-, nitrate (ester) (9CI) (CA INDEX NAME)



LS ANSWER 5 OF 8 CAPLUS COPYRIGHT 2007 ACS ON STN
 AN 1999:667043 CAPLUS [Full-text](#)
 DN 132:35323

TI Nitroester chemistry. 21. Synthesis of olefins from nitroesters

Kochergin, P. M.; Blinova, L. S.; Karpov, G. A.; Mikhailova, I. S.; Aleksandrova, E. V.; Korol, O. V.

CS Center for Drug Chemistry-All-Russia Research Institute of Pharmaceutical Chemistry, Moscow, Russia

SO Pharmaceutical Chemistry Journal (Translation of Khimiko-Farmatsvitcheskii Zhurnal) (1999), 33(1), 41-44
 CODEN: PCJOAU; ISSN: 0091-150X

PB Consultants Bureau
 DT Journal
 LA English

10555664 16 of 18

DN 63:88547

ORF 63:16327b-g

TI Thiazoles. XI. Synthesis and behavior of some new halogenated formylthiazoles

AU Silberg, A.; Frenkel, Z.

CS Univ. "Babes-Bolyai" Cluj, Rom.

SO Scitia Universitatis Babes-Bolyai, Chemia (1965), 10(1), 27-31
 CODEN: SUBCAB; ISSN: 1224-7154

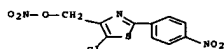
DT Journal
 LA Romanian

AB Cf. ibid., 9(2), 7-15 (1964); CA 61, 16061a. A new type of thiazolecarboxaldehyde was synthesized, in which the formyl group in position 4 of the thiazole mol. had a halogen as neighbor. Starting with 2-phenyl-4-chloromethylthiazole (I), and boiling it with aqueous HNO3, 2-phenyl-4-hydroxymethyl-5-chlorothiazole (II) was obtained. II (2 g.) was dissolved in 40 cc. hot acetic acid, adding while hot 0.8 g. Na2Cr2O7·2H2O in 10 cc. hot acetic acid; a violent reaction took place and the solution turned green. The solution was heated for 1 hr. more on a water bath to yield 85% 2-phenyl-4-formyl-5-chlorothiazole (III), m. 91-2°. III suffered no disproportionation in the Cannizzaro reaction, in contrast to 2-phenyl-4-formylthiazole. III (0.2 g.) and 0.2 g. malonic acid in a mixture of 0.8 cc. pyridine and 0.04 cc. piperidine was heated 1.5 hrs. on a hot water bath and boiled 15 min. to yield 2-phenyl-5-chloro-4-thiazoleacrylic acid (IV), m. 244-5° (EtOH). A similar reaction was obtained with 2-phenyl-4-formylthiazole. Boiling a solution of 0.2 g. III and 0.3 g. hydroxylamine-HCl in 1 cc. pyridine and 2 cc. absolute EtOH on a water bath gave 2-phenyl-4-formyl-5-chlorothiazole oxime (V), m. 185-6° (EtOH). A solution of 1.5 g. II in 7 cc. concentrated H2SO4 was chilled to -5° and 0.7 cc. fuming HNO3 (d. 1.51) added dropwise while stirring; the mixture was kept 45 min. at -5° and at room temperature to give quant. 2-(p-nitrophenyl)-4-hydroxymethyl-5-chlorothiazole nitric ester (VII), m. 92-3° (very little EtOH). The p-position of the nitro function was established by oxidation or hydrolysis of VII. By oxidation of VI as II, 2-(p-nitrophenyl)-4-formyl-5-chlorothiazole (VIII), m. 162-3°, was obtained in low yield. Treatment of VII as III gave 2-(p-nitrophenyl)-4-formyl-5-chlorothiazole oxime (VIII), m. 227°. By dissolving 0.2 g. VI in min. 90-5% H2SO4, and heating for 15-20 min. at 60-70°, followed by pouring over ice, 2-(p-nitrophenyl)-4-hydroxymethyl-5-chlorothiazole (IX) was obtained in 70% yield, m. 180° (EtOH). IX was also obtained by nitration of I to 2-(p-nitrophenyl)-4-chloromethylthiazole (X) followed by boiling 2.5 g. X in a mixture of 30 cc. HNO3 (d. 1.42) and 70 cc. H2O for 3 hrs., and cooling (70% yield). Oxidation of XI as of II gave VII in almost quant. yield. The ir spectra of the chlorothiazolecarboxaldehydes were very similar to those of the corresponding nonhalogenated aldehydes except for a slight shift of the νC=O towards higher values (1715 cm.-1). In the case of VII, the bands characteristic of the NO2 group appeared at the same values, 1525 and 1350 cm.-1, as in the case of 2-(p-nitrophenyl)-4-formylthiazole. 15 references.

IT 252568-49-3
 RL: 4-Thiazolemethanol, 5-chloro-2-(p-nitrophenyl)-, nitrate (ester) (preparation of)

RN 4264-45-3 CAPLUS

CN 4-Thiazolemethanol, 5-chloro-2-(p-nitrophenyl)-, nitrate (ester) (8CI) (CA INDEX NAME)



L8 ANSWER 7 OF 8 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1965:409502 CAPLUS [Full-text](#)

DN 63:9582

OREF 63:1663c-d

TI Stabilization of ascorbic acid in oral liquid formulations. III. Effect of vitamins

AU Das, Sudeb; Dutta, B. K.; Dutta, B. N.

CS Dey's Med. Stores (Mfg.) Pvt. Ltd., Calcutta, India

SO J. Proc. Inst. Chemists (1964), 36(5), 256-8

DT Journal

LA English

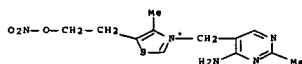
AB The effect of different vitamins was investigated on the kinetics of degradation of vitamin C in 60:20:20 70% sorbitol solution-propylene glycol-glycerol. To solns. of 100 mg. ascorbic acid/5 ml. base was added each of the following vitamins: 7.5 mg. thiamine-HCl; 7.5 mg. thiamine mononitrate; 7.5 mg. riboflavin; 7.5 mg. riboflavin 5'-phosphate; 7.5 mg. panthenol; 15 mg. Ca pantothenate; 75 mg. niacinamide; 7.5 mg. pyridoxine-HCl; 35 γ cyanocobalamin; 1.5 mg. folic acid; 1.5 mg. menadione; 1500 I.U. vitamin A palmitate; 35 mg. inositol; and 185 γ calciferol. The pH was adjusted to 3.4 and 50 ml. of each formulation stored in 4 oz. amber glass bottles at 70°. The potency of ascorbic acid was then determined at appropriate time intervals and the rate of degradation of ascorbic acid were calculated by the graphic modification of McLeod, et al. (CA 53, 649h) of Garrett's method (CA 50, 14183b) by application of the Arrhenius equation. Thiamine-HCl, panthenol, cyanocobalamin, folic acid, pyridoxine-HCl, vitamin A palmitate, riboflavin, inositol, and calciferol had no appreciable effect on the degradation of vitamin C. The degree of degradation of ascorbic acid was most marked with Ca pantothenate, niacinamide, menadione, thiamine mononitrate, and riboflavin 5'-phosphate in decreasing order.

IT 863004-05-7, Thiamine, nitrate (ester)

(ascorbic acid stability in oral liquid pharmaceutical containing)

RN 869004-05-7 CAPLUS

CN Thiazolium, 3-[(4-amino-2-methyl-5-pyrimidinyl)methyl]-4-methyl-5-[2-(nitrooxy)ethyl]- (CA INDEX NAME)



L8 ANSWER 8 OF 8 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1965:409581 CAPLUS [Full-text](#)

DN 63:9581

OREF 63:1663a-c

TI Stabilization of ascorbic acid in oral liquid formulations. II. Effect of pH and metallic ions

AU Das, Sudeb; Dutta, B. K.; Dutta, B. N.

CS Dey's Med. Stores (Mfg.) Pvt. Ltd., Calcutta, India

SO J. Proc. Inst. Chemists (1964), 36(5), 252-5

DT Journal

LA English

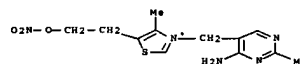
AB The effect was investigated of pH and different metallic ions on the stabilization of ascorbic acid in the base 60:20:20 70% sorbitol solution-propylene glycol-glycerol. To 20 mg. ascorbic acid/ml. base was added each of the following metallic salts (to a final concentration of 0.1%): CuSO₄; CoCl₂; Ca gluconate; FeSO₄; MgSO₄; MnSO₄; Na glycerophosphate; K glycerophosphate. The pH of each formulation was adjusted to 3.5 and 50 ml. of each formulation was stored at 70° in amber glass bottles. The potency of ascorbic acid was then determined at appropriate intervals by titration with iodine solution and rates of degradation calculated. The maximum deleterious effect was produced by Cu⁺⁺, followed by Fe⁺⁺, K⁺, and Mg⁺⁺; Na⁺, Co⁺⁺, and Ca⁺⁺ had little effect while Mn⁺⁺ was practically without effect. The stability of ascorbic acid was determined in the base 60:20:20 70% sorbitol-propylene glycol-glycerol at pH's 2.11, 2.90, 3.74, 4.41, and 5.59 at 70°. The degradation constant decreased with increases in pH. There was a sharp increase in the K₀ value when the pH was increased from 2.1 to 3.75, while the changes in K₀ in the range pH 3.75-4.41 were very small and after 4.41 fell to 0.1000 mg./5 ml./hr. at pH 5.59.

IT 869004-05-7, Thiamine, nitrate (ester)

(ascorbic acid stability in oral liquid pharmaceutical containing)

RN 869004-05-7 CAPLUS

CN Thiazolium, 3-[(4-amino-2-methyl-5-pyrimidinyl)methyl]-4-methyl-5-[2-(nitrooxy)ethyl]- (CA INDEX NAME)



=> log hold

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

FULL ESTIMATED COST

ENTRY

SESSION

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE

TOTAL

CA SUBSCRIBER PRICE

ENTRY

SESSION

SESSION WILL BE HELD FOR 120 MINUTES

STN INTERNATIONAL SESSION SUSPENDED AT 09:01:46 ON 28 DEC 2007